UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/636,016	08/07/2003	Anant Achyut Setlur	122370/RD30124 GLOZ 20013	1008

27885 7590 05/13/2005

FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP
1100 SUPERIOR AVENUE, SEVENTH FLOOR
CLEVELAND, OH 44114

EXAMINER	
ZIMMERMAN, GLENN	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/636,016	SETHUR, ET AL	
	Examiner	Art Unit	
	Glenn Zimmerman	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-22 is/are rejected.

7)☒ Claim(s) 3 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 December 2004 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 1204 and 0803.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 3 is objected to because of the following informalities: In claim 3 line 3, the examiner suggest changing the capital "K" to - - k - -. Appropriate correction is required.

Specification

The disclosure is objected to because of the following informalities: The examiner notes that the abstract should be updated to include Mn^{2+}.

Appropriate correction is required.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 112, 114, 116, 118, 214 and 216. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 10, 12-15 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bokor et al. WO 02/11214 A1.

The examiner is using Bokor et al. U.S. Patent Application Publication 2004/0056256 A1 as the referenced information below and as an interpretation of Bokor et al. WO 02/11214 A1, which is in a foreign language. Note that the U.S. Patent Application Publication claims priority to Bokor PCT/DE01/02849, which is the published document WO 02/11214 A1. The rejection is with Bokor et al. WO 02/11214 A1, but the interpretation is with Bokor et al. U.S. Patent Application Publication 2004/0056256 A1.

Regarding claim 1, Bokor et al. disclose a lighting apparatus **(paragraph 22; white LED)** for emitting white light comprising a semiconductor light source **(GaInAlN; paragraph 22)** emitting radiation having a wavelength in the range of from about 235 to

about 430 nm **(GaInAlN)**; a phosphor composition radiationally coupled to the semiconductor light source **(paragraph 22)**, the phosphor composition comprising a blue phosphor, a green emitting phosphor and a red emitting phosphor **(paragraph 22; Tables 1-3)** comprising (Ba, Sr, Ca)$_3$Mg$_x$Si$_2$O$_8$.:Eu^{2+}, Mn^{2+}, wherein $1 \leq x \leq 2$ **(Table 3)**.

Regarding claim 2, Bokor et al. disclose the lighting apparatus of claim 1, wherein the semiconductor light source is a light emitting diode (LED) **(paragraph 22)**.

Regarding claim 10, Bokor et al. disclose the lighting apparatus of claim 1, wherein the blue emitting phosphor is selected from the group consisting of (Ba,Sr,Ca)$_5$(PO$_4$)$_3$(Cl,F,Br,OH):Eu^{2+} **(Table 1)**.

Regarding claim 12, Bokor et al. disclose the lighting apparatus of claim 8, wherein the green phosphor is selected from the group consisting of (Ba,Sr,Ca)Al$_2$O$_4$:Eu^{2+} **(Table 2).**

Regarding claim 13, Bokor et al. disclose a lighting apparatus for emitting light according to claim 1, wherein the (Ba, Sr, Ca)$_3$Mg$_x$Si$_2$O$_8$.:Eu^{2+}, Mn^{2+} phosphor emits radiation having a first emission peak at about 430 to about 475 nm and a second emission peak at around 610 to 700 nm **(Table 3; choose Ba and Sr but not Ca)**.

Regarding claim 14, Bokor et al. disclose the lighting apparatus of claim 1, wherein the (Ba, Sr, Ca)$_3$Mg$_x$Si$_2$O$_8$.:Eu^{2+}, Mn^{2+} phosphor contains a greater amount of Sr than Ba or Ca **(Table 3; paragraph 19; Choose zero amount of Ba and Ca and then choose Sr)**.

Regarding claim 15, Bokor et al. disclose the lighting apparatus of clai 1, wherein x=1 **(Table 3)**.

Regarding claim 17, Bokor et al. disclose a method for forming a lighting apparatus, the method comprising the steps of: providing a near UV LED **(paragraph 22)** capable of emitting radiation having a wavelength of from about 235 to about 430 nm **(paragraph 22; GaInAlN)**; and, radiationally coupling a phosphor composition to the LED **(paragraph 22)**, the phosphor composition comprising a blue emitting phosphor, a green emitting phosphor and a red emitting phosphor **(paragraph 22; Tables 1-3)** comprising $(Ba, Sr, Ca)_3Mg_xSi_2O_8.:Eu^{2+}, Mn^{2+}$, **(Table 3)** wherein $1 \leq x \leq 2$; wherein the phosphor composition is capable of absorbing the radiation emitted by the semiconductor light source and converting the radiation into white light **(paragraph 22 White LED)**.

Regarding claim 18, Bokor et al. disclose a phosphor blend comprising a blue emitting phosphor, a green emitting phosphor and a red emitting phosphor comprising $(Ba, Sr, Ca)_3Mg_xSi_2O_8.:Eu^{2+}, Mn^{2+}$ **(Table 3; paragraph 22; mixture).**

Regarding claim 19, Bokor et al. disclose the phosphor blend of claim 18, wherein the phosphor blend is capable of absorbing the radiation emitted by a semiconductor light emitting from 235-430nm and converting the radiation into white light **(paragraph 22; mixture; GaInAlN; White LED)**.

Regarding claim 20, Bokor et al. disclose a lighting apparatus for emitting light comprising **(paragraph 11 colored LED)**: a semiconductor light source emitting radiation having a wavelength in the range of from about 235 to about 430 nm **(paragraph 11; paragraph 13; paragraph 22)**; a phosphor composition comprising a red emitting phosphor comprising $(Ba, Sr, Ca)_3Mg_xSi_2O_8.:Eu^{2+}, Mn^{2+}$, **(Table 3;**

paragraph 11; choose one phosphor which is the red emitting phosphor (Ba, Sr, $Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+}) wherein $1 \leq x \leq 2$.

Regarding claim 21, Bokor et al. disclose a lighting apparatus for emitting light according to claim 20, wherein x = 1 **(Table 3)**.

Regarding claim 22, Bokor et al. disclose a lighting apparatus for emitting light according to claim 20, wherein the phosphor emits radiation having a first emission peak at about 430 to about 475 nm and a second emission peak at around 610 to 700 nm **(Table 3; choose Ba and Sr but not Ca)**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 10, 12-15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komoto et al. U.S. Patent 6,340,824 in view of Bokor et al. WO 02/11214 A1.

The examiner is using Bokor et al. U.S. Patent Application Publication 2004/0056256 A1 as the referenced information below and as an interpretation of Bokor et al. WO 02/11214 A1, which is in a foreign language. Note that the U.S. Patent Application Publication claims priority to Bokor PCT/DE01/02849, which is the published

document WO 02/11214 A1. The rejection is with Bokor et al. WO 02/11214 A1, but the interpretation is with Bokor et al. U.S. Patent Application Publication 2004/0056256 A1.

Regarding claim 1, Komoto et al. teach a lighting apparatus for emitting white light apparatus for emitting white light **(col. 3 lines 22-29)** comprising: a semiconductor light source emitting radiation having a wavelength in the range of from about 235 to about 430 nm **(col. 1 lines 30-36)**; a phosphor composition radiationally coupled **(col. 3 lines 4-10 & 13-16)** to the semiconductor light source, the phosphor composition comprising a blue emitting phosphor, a green emitting phosphor and a red emitting phosphor **(col. 3 lines 22-29)**, but fails to teach a red emitting phosphor comprising $(Ba,Sr, Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+}, wherein $1\leq x\leq 2$. Bokor et al. in the analogous art teaches a red emitting phosphor comprising $(Ba,Sr, Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+}, wherein $1\leq x\leq 2$ **(Table 3; paragraph 19)**. Additionally, Bokor et al. teach incorporation of such a a red emitting phosphor comprising $(Ba, Sr, Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+}, wherein $1\leq x\leq 2$ to improve emission of UV to red wavelength conversion and also to improve white light LEDs when used in a mixture of RGB phosphors and improve color rendering **(paragraph 22)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a red emitting phosphor comprising $(Ba,Sr, Ca)_3Mg_xSi_2O_8$ in the white emitting light and phosphor mix of the lamp of Komoto et al., since such a modification would improve emission of UV to green wavelength conversion and also to improve white light LEDs when used in a mixture of RGB phosphors and improve color rendering as taught by Bokor et al.

Regarding claim 2, Komoto et al. disclose the lighting apparatus of claim 1, wherein the semiconductor light source is a light emitting diode **(col. 1 lines 30-36)**.

Regarding claim 3, Komoto et al. disclose the lighting apparatus of claim 2, wherein the LED comprises a nitride compound semiconductor represented by the formula $In_iGa_jAl_kN$, where $0 \leq i$; $0 \leq j$, $0 \leq K$, and $i+j+k=1$ **(col. 1 lines 30-36)**.

Regarding claim 4, Komoto et al. disclose the lighting apparatus of claim 1, wherein the phosphor composition **(wavelength converter Fig. 16 ref. FL)** is coated on the surface of the semiconductor light source **(semiconductor light emitting element ref. 990)**.

Regarding claim 5, Komoto et al. disclose the lighting apparatus of claim 1, further comprising an encapsulating **(protective resin Fig. 19 ref. 340)** surrounding the semiconductor light source and the phosphor composition.

Regarding claim 6, Komoto et al. disclose the lighting apparatus of claim 1, further comprising the phosphor composition is dispersed **(fluorescent material uniformly incorporated into the resin Fig. 28A ref. 340)** in the encapsulant.

Regarding claim 7, Komoto et al. disclose the lighting apparatus of claim 1, further comprising a reflector cup **(reflective cup Fig. 16 ref. 110; Fig. 20 ref. 370)**.

Regarding claim 10, Komoto et al. teach all the limitations of claim 10, but fail to teach wherein the blue emitting phosphor is selected from the group consisting of $(Ba,Sr,Ca)_5(PO_4)_3(Cl,F,Br,OH):Eu^{2+}$. Bokor et al. in the analogous art teaches wherein the blue emitting phosphor is selected from the group consisting of $(Ba,Sr,Ca)_5(PO_4)_3(Cl,F,Br,OH):Eu^{2+}$ **(Table 1)**. Additionally, Bokor et al. teach

incorporation of such a blue emitting phosphor to improve emission of UV to blue wavelength conversion and also to improve white light LEDs when used in a mixture of RGB phosphors and improve color rendering **(paragraph 22)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a blue emitting phosphor is selected from the group consisting of $(Ba,Sr,Ca)_5(PO_4)_3(Cl,F,Br,OH):Eu^{2+}$ in the blue emission phosphor of Komoto et al., since such a modification would improve emission of UV to blue wavelength conversion and also to improve white light LEDs when used in a mixture of RGB phosphors and improve color rendering as taught by Bokor et al.

Regarding claim 12, Komoto et al. teach all the limitations of claim 12, but fail to teach wherein the green emitting phosphor is selected from the group consisting of $(Ba,Sr,Ca)Al_2O_4:Eu^{2+}$. Bokor et al. in the analogous art teaches wherein the blue emitting phosphor is selected from the group consisting of $(Ba,Sr,Ca)Al_2O_4:Eu^{2+}$ **(Table 2)**. Additionally, Bokor et al. teach incorporation of such a green emitting phosphor to improve emission of UV to green wavelength conversion and also to improve white light LEDs when used in a mixture of RGB phosphors and improve color rendering **(paragraph 22)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a green emitting phosphor is selected from the group consisting of $(Ba,Sr,Ca)Al_2O_4:Eu^{2+}$ in the green emission phosphor of Komoto et al., since such a modification would improve emission of UV to green

wavelength conversion and also to improve white light LEDs when used in a mixture of RGB phosphors and improve color rendering as taught by Bokor et al.

Regarding claim 13, Bokor et al. disclose wherein the (Ba,Sr, $Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+} phosphor emits radiation having a first emission peak at about 430 to about 475 nm and a second emission peat at around 610 to 700 nm **(Table 3 paragraph 19)**. This claim is rejected for the same reasons found in claim 1.

Regarding claim 14, Bokor et al. disclose the lighting apparatus of claim 1, wherein the (Ba,Sr, $Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+} phosphor contains a greater amount of Sr than Ba or Ca **(Table 3; paragraph 19; Choose zero amount of Ba and Ca and then choose Sr)**. This claim is rejected for the same reasons found in claim 1.

Regarding claim 15, Bokor et al. disclose the lighting apparatus of claim 1, wherein x = 1 **(Table 3; paragraph 19)**. This claim is rejected for the same reasons found in claim 1.

Regarding claim 18, Komoto et al. discloses a phosphor blend comprising a blue emitting phosphor, a green emitting phosphor and a red emitting phosphor **(col. 3 lines 22-29)**. Yocum discloses using the red phosphor of (Ba,Sr, $Ca)_3Mg_xSi_2O_8.:Eu^{2+}$, Mn^{2+}, wherein $1 \leq x \leq 2$ **(col. 1 lines 65-66; claim 6)**, and for the same reasons as disclosed in claim 1.

Regarding claim 19, Komoto disclose the phosphor blend of claim 18, wherein the phosphor blend is capable of absorbing the radiation emitted by a semiconductor light source **(col. 1 lines 30-36)** emitting from 235-430 nm **(col. 1 lines 30-36)** and

coverting the radiation into white light **(col. 3 lines 22-29)**. Bokor et al. disclose that the red phosphor is capable of this **(Table 3; paragraph 19)**.

Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor et al. WO 02/11214 A1 in view of Srivastava et al. WO 01/89001 A2.

Regarding claim 8, Bokor et al. teach all the limitations of claim 8, but fail to teach wherein the phosphor composition further comprises at least one of a blue-green emitting phosphor, an yellow-orange emitting phosphor, and an additional red emitting phosphor. Srivistava et al. in the analogous art teach wherein the phosphor composition further comprises at least one of a blue-green emitting phosphor, an yellow-orange emitting phosphor **(page 20 lines 19-26)**, and an additional red emitting phosphor **(page 20 lines 19-26; page 28 line 11)**. Additionally, Srivistava et al. teach incorporation of such a phosphor composition further comprises at least one of a blue-green emitting phosphor, an yellow-orange emitting phosphor, and an additional red emitting phosphor to improve white light illumination **(page 4 line 22)** to improve the light by providing a CRI above 20 an efficacy above 200 lm/W, color temperature between 3000k and 6500K and response to UV light **(page 5 lines 2-8)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use wherein the phosphor composition further comprises at least one of a blue-green emitting phosphor, an yellow-orange emitting phosphor, and an additional red emitting phosphor in the phosphor blend of Bokor et al., since such a modification would improve white light illumination to improve the light by

providing a CRI above 20 an efficacy above 200 lm/W, color temperature between 3000k and 6500K and response to UV light as taught by Srivastava et al.

Regarding claim 11, Srivastava et al. disclose wherein the red phosphor is selected from the group consisting of $3.5MgO*0.5MgF_2*GeO_2"Mn^{4+}$. This claim is rejected for the same reasons found in claim 11. Srivastava discloses that more phosphors can be used, so to have two red phosphors will yield the white illumination system along with the improvements given in claim 8.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor et al. WO 02/11214 A1 in view of Danielson et al. U.S. Patent 6,850,002.

Regarding claim 9, Bokor et al. teach all the limitations of claim 9, but fail to teach wherein the phosphor composition comprises a spectral weight of 0.01-0.03 of the blue phosphor, about 0.1-0.5 of the green phosphor, and the balance of the red phosphor. Danielson et al. in the analogous art teach wherein the phosphor composition comprises a spectral weight of 0.01-0.03 of the blue phosphor, about 0.1-0.5 of the green phosphor, and the balance of the red phosphor **(col. 8 lines 45-50)**. Additionally, Dnielson et al. teach incorporation of such a phosphor composition that comprises a spectral weight of 0.01-0.03 of the blue phosphor, about 0.1-0.5 of the green phosphor, and the balance of the red phosphor to improve emission of white light **(col. 8 line 47)** and also provide white light with an index of color rending of 83 and color coordinates of x=0.336 and y=0.339 **(col. 8 line 48-50)**.

Consequently it would have been obvious to a person having ordinary skill in the art at the time the invention was made to use a phosphor composition that comprises a

spectral weight of 0.01-0.03 of the blue phosphor, about 0.1-0.5 of the green phosphor, and the balance of the red phosphor in the phosphor composition of Bokor et al., since such a modification would improve emission of white light and also provide white light with an index of color rending of 83 and color coordinates of x=0.336 and y=0.339 as taught by Danielson et al.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bokor et al. WO 02/11214 A1.

Generally, differences in concentration or temperature, etc. will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature, etc. is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In claim 16, the limitation "wherein the total combined doping levels of Eu^{2+} and Mn^{2+} is from 0.1% to 40% by weight of the total phosphor composition" is considered an optimization of a range as the percent relative to the total composition of the phosphor i.e. red, green and blue phosphor total is not critical, as the green and blue phosphors might also contain Eu^{2+} and Mn^{2+}.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yocom U.S. Patent 6,099,754 discloses Long Persistence Red Phosphors. Hanamoto et al. U.S. Patent Application Publication 2002/0063301 A1 disclose a Semiconductor Light-Emitting Device and Light-Emitting Display Device Therewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Zimmerman whose telephone number is (571) 272-2466. The examiner can normally be reached on M-W 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Glenn Zimmerman

Vip Patel
Primary Examiner
AU 2879